

SUBSTITUTE SPECIFICATION

BACKGROUND AND SUMMARY

- [0001]** The present disclosure relates to a solid bowl screw centrifuge including: a drum having a solids discharge at a conical end and at least one discharge opening at an end opposite the conical end, the at least one discharge opening arranged with an axial drum lid; a screw rotatable at a different speed relative to the drum; a centripetal chamber section connected behind the drum lid with the at least one discharge opening; and a centripetal pump arranged to discharge a liquid phase from the solid bowl screw centrifuge.
- [0002]** Centrifuges having one or more centripetal pump(s) as a liquid discharge are known from the field of separators as well as from the field of solid bowl screw centrifuges.
- [0003]** It is also known to discharge a liquid phase, particularly under pressure, from solid bowl screw centrifuges by means of centripetal pumps. In these cases, a baffle plate is generally arranged on the screw in the transition to the conical area or at another suitable point. For adjusting the conditions in the centrifuge, particularly the liquid level, the centripetal pump is appropriately throttled. This has considerable effects on the entire process and thus on the centrifuge as well as possible surrounding components or components on the output side. The adjusting of solid bowl screw centrifuges therefore requires relatively high expenditures and can only take place to a limited extent during the operation.
- [0004]** The present disclosure relates to improving the operation and the adjustability of solid bowl screw centrifuges which have a centripetal pump as the liquid discharge.
- [0005]** Thus, the present disclosure relates to a solid bowl screw centrifuge that includes: a solid bowl screw centrifuge comprising: a drum having a solids discharge at a conical end and at least one discharge opening at an end opposite the conical end, the at least one